#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

69.28 File #:

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014095 Address: 333 Burma Road **Date Inspected:** 10-May-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** An Qing Xiang, Yu Qi Guo **CWI Present:** Yes No **Inspected CWI report:** Yes No N/A **Rod Oven in Use:** Yes No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A Yes N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Tower

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

Bay 11, East Tower lift 4, AE Corner Backfill Plate

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% and random Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

ESTL4-2C/L-47, 115

ESTL4-2F/L-109, 44

ESTL4-2G/L-44, 116

ESTL4-2H/L-105, 68

ESTL4-2I/L-109, 70

ESTL4-2J/L-108, 70

ESTL4-2K/L-105, 45

Bay 10, A28 Shear Plate



# WELDING INSPECTION REPORT

(Continued Page 2 of 4)

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% and random Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated MT report for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

WD1-A28A/B-45, 52, 76

Bay 10, Bearing Stiffener with A26 Shear plate

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% and random Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated MT report for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

ND1-A26B/B-51, 47

Bay 10, North Tower Lift 4, BC Corner Triangular Diaphragm & Diagonal Stiffener (GREEN TAG NO. 11667)

This QA Inspector performed green tagging for the BC corner triangular diaphragm and diagonal stiffener of North tower lift 4. The components are identified as Tower components.

This Quality Assurance (QA) Inspector observed the following work in progress:

BAY11

#### LIFT 4 STRUT PLATE

SMAW welding of weld joint 29 located on ND1-STSA4-6-123M-1.

Welder is identified as 054460. ZPMC QC is identified as Mr. Liu Dao Feng.

The welding variables recorded by QC appeared to comply with WPS-B-T-2113.

SMAW welding of weld joint 55 located on ND1-STSA4-6-135M-2.

Welders are identified as 206189. ZPMC QC is identified as Mr. Liu Dao Feng.

The welding variables recorded by QC appeared to comply with WPS-B-T-2112.

West Tower lift 4, Fitlug at AE Corner

FCAW welding of weld joint 43 located on WSTL4-2K/L.

Welder is identified as 040704. ZPMC QC is identified as Mr. Zhao Mao Mao.

The welding variables recorded by QC appeared to comply with WPS-B-T-4333-Tc-P4-F.

**BAY 10** 

#### TOWER GRILLAGE PLATE

SMAW welding of weld joint 35B located on SSD1-TL5-1B-F.

# WELDING INSPECTION REPORT

(Continued Page 3 of 4)

Welder is identified as 500363. ZPMC QC is identified as Mr. Deng Zhi Bing.

The welding variables recorded by QC appeared to comply with WPS-B-T-3213-B-U3b.

SMAW welding of weld joint 2B located on SSD1-TL5-1B-F.

Welder is identified as 500373. ZPMC QC is identified as Mr. Deng Zhi Bing.

The welding variables recorded by QC appeared to comply with WPS-B-T-3213-B-U3b.

### PADEYE ON SKIRT PLATE

SMAW welding of weld joint 18 located on SSD1-A434A/D.

Welder is identified as 044511. ZPMC QC is identified as Mr. Jiang Xiao Bo.

The welding variables recorded by QC appeared to comply with WPS-B-P-2111/2114-PADEYE.

#### BEARING STIFFENER ON A27 SHEAR PLATE

FCAW welding of weld joint 21 located on ED1-A27B/E.

Welder is identified as 204868. ZPMC CWI is identified as Mr. You Qi Guo.

The welding variables recorded by QC appeared to comply with WPS-B-T-2331-Tc-P4-F.

## EXTERIOR DIAPHRAGM CONNECTION PLATE (ND1-A10)

During random in process inspection, this QA inspector observed that ZPMC personnel was performing buttering of about 3mm~9mm on the edge of exterior diaphragm connection plate of ND1-A10. Welder is identified as 053869. ZPMC QC is identified as Mr. Yu Zhi Lai. The welding variables recorded by QC appeared to comply with WPS-345-FCAW-2G(2F)-REPAIR.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest: 15000422360, who represents the Office of Structural Materials for

# WELDING INSPECTION REPORT

(Continued Page 4 of 4)

your project.

**Inspected By:** Gaikwad,Umesh Quality Assurance Inspector

**Reviewed By:** Clifford,William QA Reviewer